

NIR-BORESCOPE THERMAL IMAGING SYSTEMS OVERVIEW



① 600 to 2000 °C / 1112 to 3632 °F



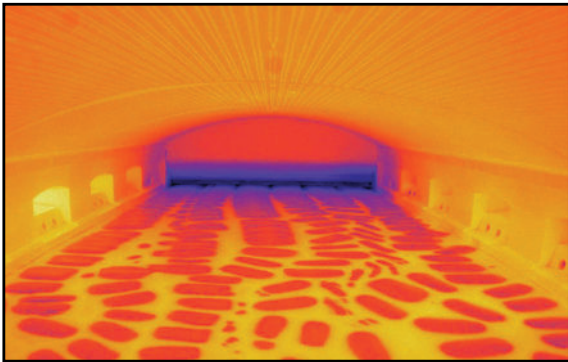
LAND
AMETEK®



QUALITY CUSTOMER SOLUTIONS

NIR-BORESCOPE THERMAL IMAGING SYSTEMS OVERVIEW

THE NIR-BORESCOPE THERMAL IMAGING FAMILY INCLUDES A RANGE OF FULL RADIOMETRIC INFRARED BORESCOPE IMAGING CAMERAS FOR CONTINUOUS 24/7 TEMPERATURE MEASUREMENT IN FURNACE APPLICATIONS TO PROLONG FURNACE LIFE TIME, OPTIMISE PRODUCTION THROUGHOUT, REDUCE ENERGY CONSUMPTION AND IMPROVE STOCK TEMPERATURES.



NIR-B-656 & NIR-B-2K

Image Pixels:	656 x 492 (656) / 1968 x 1476 (2K)
Field of View (Horizontal x Vertical):	95° x 71° (2K/656) / 30° x 23° (656)
Measurement Ranges:	600 to 1000 °C / 1112 to 1832 °F 800 to 1400 °C / 1472 to 2552 °F 1000 to 1800 °C / 1832 to 3272 °F
Glass Melt Tank Model - NIR-B-2K-GLASS (please refer to NIR-B-GLASS Brochure)	1000 to 1800 °C / 1832 to 3272 °F 95° x 71°

656 - Standard resolution (656 x 492 pixels) gives over 300 thousand temperature points.
2K - High resolution (1968 x 1476 pixels) gives nearly 3 million temperature points.

TYPICAL APPLICATIONS

Reheat Furnace	Glass Melt Tanks
Cement Kilns	Biomass Boilers
Coal Fired Power Boilers	

NIR-B-640

Image Pixels:	640 x 480
Field of View (Horizontal x Vertical):	90° x 67.5° / 44° x 33°
Measurement Range:	600 to 2000 °C / 1112 to 3632 °F

Wide dynamic range imaging technology for furnace applications where a wider temperature measurement range is required from a single imager.

TYPICAL APPLICATIONS

Cement Kiln	Cement Cyclone Furnace
Reheat Furnace	Continuous Casting (zone 1)
Heat Treatment Furnace	Annealing Furnace

NIR-B-640-EX (Formerly NIR-B-3XR)

Image Pixels:	640 x 480
Field of View (Horizontal x Vertical):	90° x 67.5° / 44° x 33°
Measurement Range:	600 to 1800 °C / 1112 to 3272 °F

Hazardous Area Certification: EX NIR-B WG1: Ex nA IIC T4 Gc Tamb=-20 °C to +55 °C (ATEX certificate: CML 15ATEX4086X / IECEx certificate: IECEx CML 15.0042X) EX NIR-B WG2: Class I, Division 2, Groups A, B, C, D; T4 Tamb=-20 °C to +60 °C (CSA certificate for US and Canada: 70080206)



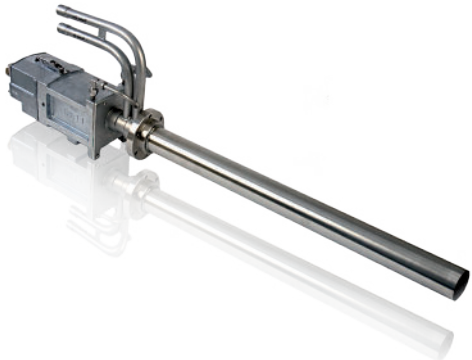
Hazardous area compliant to ATEX, IECEx and CSA. Wide dynamic range imaging technology for furnace applications where a wider temperature measurement range is required from a single imager.

TYPICAL APPLICATIONS

Hydrogen Reformer	Ammonia Production
Ethylene Cracking Furnaces	Methanol Production
Syngas Production	

RETRACTION SYSTEMS

STAND ALONE SYSTEM



NIR-B-656 | NIR-B-2K | NIR-B-640

The system comprises of a borescope thermal imaging camera, water cooled/air purged housing, power supply unit, cables (25 or 50 m) and IMAGEPro software.

NIR-B-640-EX (Formerly NIR-B-3XR)

The system* comprises borescope thermal imaging camera, water cooled/air purged housing, field connection box (ExHazloc), control room unit (ExHazloc, associated apparatus), junction box (ExHazloc), cables (10, 25 or 50 m) and IMAGEPro software.

*Dependant on system configuration.

AUTO-RETRACT SYSTEMS PROTECT THE THERMAL IMAGING CAMERAS FROM DAMAGE BY OVERHEATING IN THE EVENT OF LOSS OF WATER FLOW, AIR PRESSURE, ELECTRICITY SUPPLY OR HIGH BORESCOPE TIP TEMPERATURE ALARM.

ELECTRICAL AUTO-RETRACT (AR) SYSTEM



NIR-B-656 | NIR-B-2K | NIR-B-640 | MWIR-B-640 | NIR-B-2K-GLASS

The system comprises borescope thermal imaging camera, water cooled and air purged borescope tube and imager protective housing, electric auto retraction system (24V), control box (IP65 rated and includes PLC, UPS and customer connection terminals), inter connects and IMAGEPro software. The UPS provides the power to retract the borescope should power failure occur. If the stored energy in the UPS falls to a certain level, the borescope automatically retracts.

LAND PNEUMATIC AUTO REATRCTION SYSTEM (LPAR)



NIR-B-656 | NIR-B-2K | NIR-B-640 | MWIR-B-640 | NIR-B-2K-GLASS

The system comprises borescope thermal imaging camera, water cooled and air purged borescope tube and imager protective housing, AMETEK Land pneumatic auto retraction system, 25m or 50m high temperature cable set (imager to control unit), PCU pneumatic control unit, mounting and adjusting frame assembly with media bar, remote control unit with cable, high-temp ethernet and power cables, hose assembly and IMAGEPro software.

THERMAL IMAGING SOFTWARE

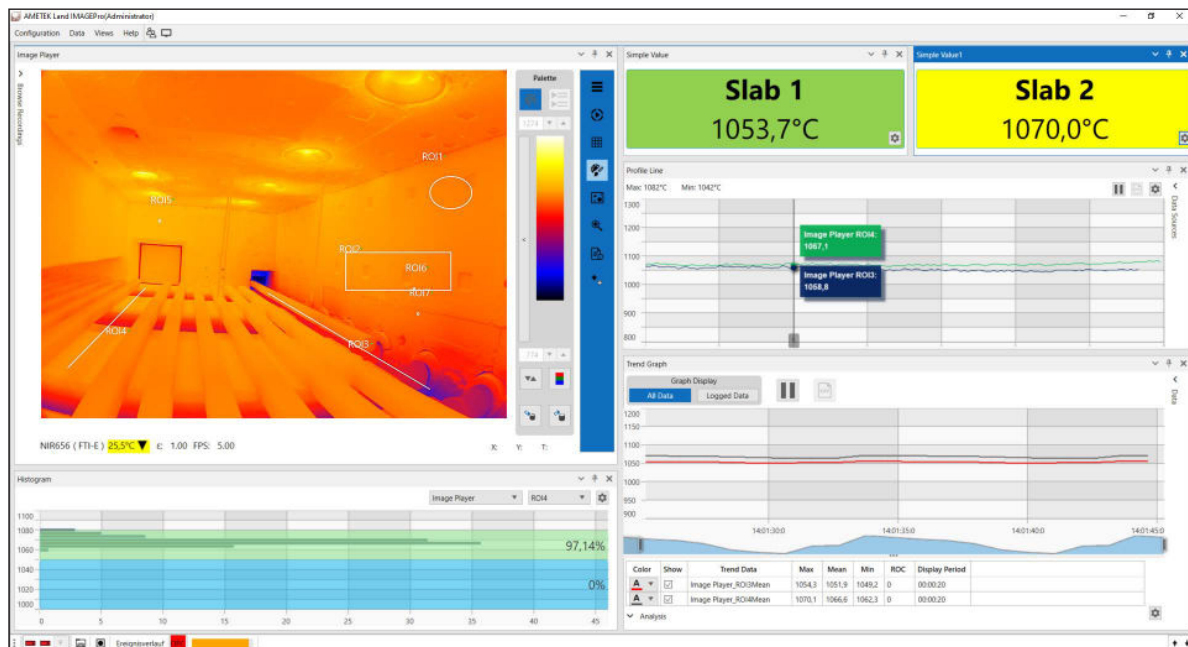
THERMAL IMAGING SOLUTIONS

IMAGEPro

The innovative IMAGEPro software is an advanced image processing software for controlling, monitoring, analysing and capturing imager data.

IMAGEPro is a Windows PC software system that enables configuration of imager, display properties and advanced temperature analysis options and supports multiple simultaneous imagers. Free 30-day trial available for extensive testing.

Able to monitor and control up to sixteen imagers, IMAGEPro offers real-time analysis for thermal imager ranges. Giving users exceptionally detailed control over their thermal imaging measurements, IMAGEPro enhances application measurements.



IMAGEPro IS FOR UP TO 16 THERMAL IMAGERS*

*DEPENDENT ON NETWORK CAPACITY AND PC HARDWARE.

DISCOVER HOW OUR BROAD RANGE OF
NON-CONTACT TEMPERATURE MEASUREMENT AND COMBUSTION &
EMISSIONS PRODUCTS OFFER A SOLUTION FOR YOUR PROCESS

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